PSYCHOLOGICAL LITERATURE.

(26) *Christianity and Idealism.* By JOHN WATSON, LL. D. The MacMillan Co., 1897. Price $1.25.

This is a new and revised edition of Professor Watson's book, which first appeared a little less than a year ago. Several additions have been made to Part II. They include chapters on "The Failure of Materialism," "The Idealistic Interpretation of Natural Evolution," "Idealism and Human Progress," besides a dozen new pages in the final chapter, in which the author supplements his view of the relation of the human to the divine intelligence. The inadequacy of a mechanical metaphysic is shown in the chapter on materialism. Evolutionalism as a philosophical principle succeeds better, for it explains the world as a rational unity. This unity is variously expressed in gravitation, chemical affinity, biological organism, and finally in the personal self. The chapter on human progress asks what is implied in this highest unity — the personal self. The answer asserts that the whole process of human evolution consists in "the gradual realization of reason in the individual and in society." Yet, this is no manifestation of a process hostile to the "cosmic" process, as Professor Huxley contended, nor is it antithetic with a "religious feeling," which Mr. Kidd makes responsible for human progress. It is rather the self-conscious and self-determining principle which explains the lower as well as the higher stages of evolution — the "ultimate conception by means of which existence must be explained." The book certainly gains in interest and value by the introduction of the concept of evolution into the service of idealistic philosophy.

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(27) *Sull' Importanza delle Ricerche relative alla Storia delle Scienze.* DOTT. GIOVANNI VAILATI. Torino, 1897, 22 pp. 8vo.

This introductory lecture to a course on the history of mechanics emphasizes the need and the value of researches into the history of human thought, as seen in the development of the various branches of science. Dr. Vailati compares the disdain with which certain Greek philosophical schools looked upon such researches with the position of Malebranche, and those who held the Scriptures to contain all knowledge, and Adam to have been all perfect before the fall. The history of human opinions, bad or good, false or true, old or new, is of paramount importance. Every error indicates some reef to be avoided, though every discovery does not always indicate a path to be followed. The "science" of times gone by is as human as the science of the century in which we now are. From the knowledge of the development of science comes a true concept of the evolving human mind. Philogeny and ontogeny receive light from such investigations. Their pedagogical value is also very high. As scientist, to use the noble phrase, one can belong "to the masters of those who know," but as teacher, he must be "the masters of those who know not." Dr. Vailati points out that at the University of Berlin there are courses in the history of chemistry and of medicine; at Breslau, in the history of medicine, of mathematics and of botany; at Königsberg, in the history of astronomy; at Graz, in the history of ancient Greek scientific literature; at Wit-

tenberg a special course in the history of chemistry, and at Tübingen, Bonn, Vienna and Turin, courses in the history of medicine. At Vienna, too, Dr. Mach gave a course on the history of the mechanical theory of heat.

(28) *Il Principio dei Lavori Virtuali da Aristotele a Erone d'Alessandria.* Nota del DOTT. GIOVANNI VAILATI. Torino, 1897, 25 pp. 8vo.

This reprint from the "Proceedings of the Royal Academy of Turin" sketches briefly the history of the principle of energy from Aristotle down to Hero of Alexandria—the mechanical questions of the former and the elevator of the latter being treated in some detail.

(29) *Il Tempo di Reazione semplice studiato in rapporto colla curva pletismografica cerebrale.* PROF. M. L. PATRIZI. Reggio-Emilia, 1897, 15 pp. 8vo.

This article, reprinted from the *Rivista Sperimentale di Freniatria*, treats of simple reaction time in relation to the cerebral plethysmographic curve. The subject was Emanuele Favre, a boy of 13, a breach in whose cranium made such observations possible. The medium of 126 reactions for stimuli (auditory) when there was great cerebral volume was 332.5σ, when less (116 reactions), 345σ. The author concludes that (1) the oscillations of the specific activity of the cerebral cells and that of the circulation in the brain follow each its own course; (2) the strength of attention manifests itself with a greater rapidity of reaction times, and with a greater regularity of the psychometric curve, together with minor inequalities in the plethysmographic curve of the brain.

(30) *I Reflessi Vascolari nelle Membra e nel Cervello dell' uomo per varî Stimoli e per varie condizioni fisiologiche e sperimentali.* PROF. M. L. PATRIZI. Reggio-Emilia, 1897, 85 pp. 8vo.

This detailed study, reprinted from the *Rivista Sperimentale di Freniatria*, is well furnished with curves and tables. The subjects were two boys of 13, Emanuele Favre at Turin and Edoardo Pardini at Sassari, the experiments extending over parts of two years, 1895–1896.

The author's conclusions are: (1) The vascular reflexes in man follow the fundamental laws of localization and irradiation, noted for the reflexes of relational life; (2) the localized vascular reflex takes place in less time than the radiated vascular reflex; (3) the brain exercises a clear influence on the activity of the spinal marrow, even in regard to the reflex movements of the blood vessels; (4) the time of vasal reflection in waking (for sensitive stimuli) is for the arm about $3''$, for the leg at about $5''$; (5) the vascular reflex of the brain (for sensorial stimuli) has a latency not less than the brachial reflex for the same stimulus; (6) sleep induces a great retardation in the time of vasal reflection, diminishing from the brain to the arm, and inappreciable in the vessels of the lower limb; (7) the blood movements of the brain in sleep, consequent on stimuli, are, doubtless, active and autonomous reflexes; (8) the vascular reflex in the limbs for sensorial stimuli and psychic stimuli takes place in a time ($4''$ in the arm) longer than the reflex for sensitive stimuli; (9) there is a vascular reaction for each sense stimulated; (10) some sensorial stimuli have greater capacity than others for provoking vasomotor reactions.